MATERIAL SAFETY DATA SHEET 85570NVA ECOLUTION ULT. GOLD SHIMMER ADD

Version Number 1.1 Revision Date 12/27/2012

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1. PRODUCT AND COMPANY IDENTIFICATION

POLYONE CORPORATION 8155 Cobb Center Drive, Kennesaw, GA 30152

Telephone Emergency telephone number	:	1 (440) 930-1000 or 1 (866) POLYONE CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure or accident).
Product name	:	85570NVA ECOLUTION ULT. GOLD SHIMMER ADD
Product code	:	FO20029122
Chemical Name	:	Mixture
CAS-No.	:	Mixture
Product Use	:	Industrial Applications

2. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight percent
Silica, amorphous, fumed, crystal-free	112945-52-5	1 - 5
Aluminum	7429-90-5	10 - 30

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

This mixture has not been evaluated as a whole for health effects. Information provided on health effects of this product is based on the individual components. However, some vapors or contaminants may be released upon heating and the end-user (fabricator) must take the necessary precautions (mechanical ventilation, respiratory protection, etc.) to protect employees from exposure. See sections 8 and 11 for special precautions. Do not use this pigment in polymers at temperatures over 200°C (392°F). Decomposition of diarylide pigments in polymers at temperatures over 200°C (392°F) may produce trace amounts of monoazo dyes, which in turn can decompose to produce aromatic amines. The amount and type of degradation products formed depend on the dwell time, formulation and processing conditions as well as temperature. As conditions become more severe, as when temperatures move into the 240-300°C (464-572°F) range, trace quantities of 3,3'-dichlorobenzidine can be generated. 3,3'-dichlorobenzidine is classified as a suspect carcinogen by NTP and IARC, is classified as Acute Toxicity category 4 and Carcinogen Category 1B according to 1272/2008EC (CLP), and is regulated by OSHA as a suspect carcinogen. In order to avoid the generation of and exposure to 3,3'-dichlorobenzidine, do not use diarylide pigments in polymers when temperatures exceed 200°C (392°F). Handle with care. Organic dusts have the potential to be explosive with static spark or flame initiation.

POTENTIAL HEALTH EFFECTS

Routes of Exposure:

: Inhalation, Skin contact, Ingestion

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Acute exposure

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Inhalation	: Inhalation of airborne droplets may cause irritation of the respiratory tract.
Ingestion	: May be harmful if swallowed.
Eyes	: May cause eye and skin irritation.
Skin	: Experience shows no unusual dermatitis hazard from routine handling.
Chronic exposure	: Refer to Section 11 for Toxicological Information.
Medical Conditions Aggravated by Exposure:	: None known.
	4. FIRST AID MEASURES
Inhalation	: Move to fresh air in case of accidental inhalation of fumes from overheating or combustion. When symptoms persist or in all cases of doubt seek medical advice.
Ingestion	: Do not induce vomiting without medical advice. When symptoms persist or in all cases of doubt seek medical advice.
Eyes	: Rinse immediately with plenty of water for at least 15 minutes. If eye irritation persists, seek medical attention.
Skin	: Wash off with soap and plenty of water. If skin irritation persists seek medical attention.
	5. FIREFIGHTING MEASURES
Flash point	: no data available
Flammable Limits	
Upper explosion limit	: no data available
Lower explosion limit	: no data available
Auto-ignition temperature Suitable extinguishing media	Not applicableCarbon dioxide blanket, Water spray, Dry powder, Foam.
Special Fire Fighting Procedures	: Fullface self-contained breathing apparatus (SCBA) used in positive pressure mode should be worn to prevent inhalation of airborne contaminants.
Unusual Fire/Explosion Hazards	 May emit Hydrogen Chloride (HCl) or Carbon Monoxide (CO) under fire conditions. Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), other hazardous materials, and smoke are all possible.
	6. ACCIDENTAL RELEASE MEASURES
Personal precautions	: Wear appropriate personal protection during cleanup, such as



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	impervious gloves, boots and coveralls.				
Environmental precautions	: The product should not be allowed to enter drains, wate the soil. Should not be released into the environment.	er courses or			
Methods for cleaning up	: Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Package all material in appropriate container for disposal.				
	7. HANDLING AND STORAGE				
Handling	: Heat only in areas with appropriate exhaust ventilation fume condensates may contain combustible or toxic res Periodically clean hoods, ducts, and other surfaces to n accumulation of these materials.	sidue.			
Storage	: Keep containers dry and tightly closed to avoid moistur and contamination. Store in a cool dry place.	re absorption			
8. EXI	SURE CONTROLS/PERSONAL PROTECTION				
Respiratory protection	: No personal respiratory protective equipment normally	required.			
Eye/Face Protection	: Safety glasses with side-shields				
Hand protection	: Protective gloves				
Skin and body protection	: Long sleeved clothing				
Additional Protective Measures	: Safety shoes				
General Hygiene Considerations	: Handle in accordance with good industrial hygiene and practice. Wash hands before breaks and at the end of v				
Engineering measures	: Heat only in areas with appropriate exhaust ventilation appropriate exhaust ventilation at machinery.	. Provide			
Exposure limit(s)					

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Components	Value	Exposure time	Exposure type	List:
Aluminum	1 mg/m3	Time Weighted Average (TWA):	Respirable fraction.	ACGIH
	10 mg/m3	Recommended exposure limit (REL):	Total	NIOSH
	5 mg/m3	Recommended exposure limit (REL):	Respirable.	NIOSH
	5 mg/m3	Recommended exposure limit (REL):	Welding fume or pyrophoric powder. as Al	NIOSH
	15 mg/m3	PEL:	Total dust. as Al	OSHA Z1
	5 mg/m3	PEL:	Respirable dust. as Al	OSHA Z1
	15 mg/m3	Time Weighted Average (TWA):	Total dust. as Al	OSHA Z1A
	5 mg/m3	Time Weighted Average (TWA):	Respirable dust. as Al	OSHA Z1A
	5 mg/m3	Time Weighted Average (TWA):	Pyrophoric powder. as Al	OSHA Z1A
	5 mg/m3	Time Weighted Average (TWA):	Fume. as Al	OSHA Z1A
	5 mg/m3	Time Weighted Average (TWA):	Welding fume.	MX OEL
	10 mg/m3	Time Weighted Average (TWA):	Dust.	MX OEL
	5 mg/m3	Time Weighted Average (TWA):	Pyrophoric powder.	MX OEL
Silica, amorphous, fumed, crystal-free	0.8 mg/m3	Time Weighted Average (TWA):		Z3
	10 mg/m3	Time Weighted Average (TWA):	Inhalable particulate.	MX OEL
	3 mg/m3	Time Weighted Average (TWA):	Respirable dust.	MX OEL

9. PHYSICAL AND CHEMICAL PROPERTIES

Form Appearance Colour Odour Melting point/range Boiling Point: Water solubility liquid
viscous, liquid
YELLOW
very faint
not applicable
not applicable
immiscible

Evaporation rate Specific Gravity Bulk density Vapour pressure Vapour density pH Not establishedNot determinedNot applicableNot determined

- : Not determined
- : Not applicable

10. STABILITY AND REACTIVITY

Stability

: The product is stable if stored and handled as prescribed.

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Hazardous Polymerization

: Will not occur.

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|------------------------------------------------|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Conditions to avoid                            | : | Keep away from oxidizing agents and open flame. To avoid thermal decomposition, do not overheat.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Incompatible Materials                         | : | Incompatible with strong acids and oxidizing agents., Avoid contact with acetal homopolymers and acetal copolymers during processing.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Hazardous decomposition<br>products            | : | Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), hydrogen chloride (HCl), other hazardous materials, and smoke are all possible. Prolonged heating may result in product degradation. As a general rule of thumb, degradation begins to occur after one hour at 177 °C ( $350 ^{\circ}$ F), after 10 minutes at 204 °C ( $400 ^{\circ}$ F), and within 5 minutes at 232 °C ( $450 ^{\circ}$ F). Do not use this pigment in polymers at temperatures over 200°C ( $392 ^{\circ}$ F). Decomposition of diarylide pigments in polymers at temperatures over 200°C ( $392 ^{\circ}$ F) may produce trace amounts of monoazo dyes, which in turn can decompose to produce aromatic amines. The amount and type of degradation products formed depend on the dwell time, formulation and processing conditions as well as temperature. As conditions become more severe, as when temperatures move into the 240-300°C ( $464-572 ^{\circ}$ F) range, trace quantities of $3,3'$ -dichlorobenzidine can be generated. $3,3'$ -dichlorobenzidine is classified as a suspect carcinogen by NTP and IARC, is classified as Acute Toxicity category 4 and Carcinogen Category 1B according to $1272/2008EC$ (CLP), and is regulated by OSHA as a suspect carcinogen. In order to avoid the generation of and exposure to $3,3'$ -dichlorobenzidine, do not use diarylide pigments in polymers when temperatures exceed $200^{\circ}$ C ( $392^{\circ}$ F). Handle with care. Organic dusts have the potential to be explosive with static spark or flame initiation. |

### **11. TOXICOLOGICAL INFORMATION**

This mixture has not been evaluated as a whole for health effects. Exposure effects listed are based on existing health data for the individual components which comprise the mixture.

### Toxicity Overview

This product contains the following components which in their pure form have the following characteristics:

| CAS-No.     | Chemical Name             | Effect           | Target Organ              |
|-------------|---------------------------|------------------|---------------------------|
| 112945-52-5 | Silica, amorphous, fumed, | Irritant         | Eyes, Respiratory system. |
|             | crystal-free              |                  |                           |
| 7429-90-5   | Aluminum                  | Irritant         | Skin, Respiratory system. |
|             |                           | Systemic effects | Eyes, Skin, Respiratory   |
|             |                           |                  | system.                   |

### LC50 / LD50

This product contains the following components which, in their pure form, have the following toxicity data:

| CAS-No. | Chemical Name | Route | Value | Species |
|---------|---------------|-------|-------|---------|
|         |               |       |       |         |



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| 112945-52-5                                                                                                                                                                                                                                                       | Silica, amorphous, fumed<br>crystal-free | , Oral LD50                                  | 3,160 mg/kg                                                                               | rat                       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|----------------------------------------------|-------------------------------------------------------------------------------------------|---------------------------|
|                                                                                                                                                                                                                                                                   | 12. ECOLOGIO                             | CAL INFORMAT                                 | ION                                                                                       |                           |
| Persistence and degrada                                                                                                                                                                                                                                           | bility : Not readily b                   | iodegradable.                                |                                                                                           |                           |
| Environmental Toxicity                                                                                                                                                                                                                                            | : Environmenta<br>whole.                 | al toxicity has not b                        | been established for                                                                      | this mixture as a         |
| Bioaccumulation Poten                                                                                                                                                                                                                                             | tial : no data availa                    | ıble                                         |                                                                                           |                           |
| Additional advice                                                                                                                                                                                                                                                 | : no data availa                         | ıble                                         |                                                                                           |                           |
|                                                                                                                                                                                                                                                                   | 13. DISPOSAL                             | CONSIDERATIO                                 | ONS                                                                                       |                           |
| Product                                                                                                                                                                                                                                                           | generator of v<br>classification         | waste material has t<br>, transportation and | erred to disposal or<br>he responsibility fo<br>disposal in accord<br>al and local regula | or proper waste ance with |
| Contaminated packaging : Recycling is preferred when possible. The generator of waste material has the responsibility for proper waste classification, transportation and disposal in accordance with applicable federal, state/provincial and local regulations. |                                          |                                              |                                                                                           |                           |
|                                                                                                                                                                                                                                                                   | 14. TRANSPO                              | RT INFORMATI                                 | ON                                                                                        |                           |
| U.S. DOT Classification                                                                                                                                                                                                                                           | n : Refer to spec                        | ific regulation.                             |                                                                                           |                           |
| ICAO/IATA                                                                                                                                                                                                                                                         | : Refer to spec                          | ific regulation.                             |                                                                                           |                           |
| IMO/IMDG (maritime)                                                                                                                                                                                                                                               | : Refer to spec                          | ific regulation.                             |                                                                                           |                           |
|                                                                                                                                                                                                                                                                   | 15. REGULATO                             | ORY INFORMAT                                 | ION                                                                                       |                           |
| US Regulations:                                                                                                                                                                                                                                                   |                                          |                                              |                                                                                           |                           |
| <b>OSHA</b> Status                                                                                                                                                                                                                                                | : Classified as                          | hazardous based or                           | n components.                                                                             |                           |
| TSCA Status : All components of this product are listed on or exempt from the TSCA Inventory.                                                                                                                                                                     |                                          |                                              |                                                                                           |                           |
| US. EPA CERCLA Haz                                                                                                                                                                                                                                                | zardous Substances (40 CF                | R 302)                                       |                                                                                           |                           |
| not applica                                                                                                                                                                                                                                                       | ble                                      |                                              |                                                                                           |                           |
|                                                                                                                                                                                                                                                                   |                                          |                                              |                                                                                           |                           |

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California Proposition : Not applicable 65

SARA Title III Section 302 Extremely Hazardous Substance

Unless specific chemicals are identified under this section, this product is Not Applicable under this regulation

SARA Title III Section 313 Toxic Chemicals:

Unless specific chemicals are identified under this section, this product is Not Applicable under this regulation

| Chemical Name                         | CAS-No.   | Weight percent |
|---------------------------------------|-----------|----------------|
| ALUMINUM (FUME OR DUST)ALUMINUM (FUME | 7429-90-5 | 10.00 - 30.00  |
| OR DUST)                              |           |                |

Canadian Regulations:

National Pollutant Release Inventory (NPRI)

| Chemical Name | CAS-No.   | Weight        | NPRI ID# |
|---------------|-----------|---------------|----------|
|               |           | percent       |          |
| Aluminum      | 7429-90-5 | 10.00 - 30.00 |          |

WHMIS Classification : D2B

WHMIS Ingredient Disclosure List

| CAS-No.   |  |
|-----------|--|
| 7429-90-5 |  |

DSL

All components of this product are on the Canadian Domestic Substances List (DSL) or are exempt.

National Inventories:

| Australia AICS    | : | Not determined |
|-------------------|---|----------------|
| China IECS        | : | Not determined |
| Europe EINECS     | : | Listed         |
| Japan ENCS        | : | Not determined |
| Korea KECI        | : | Not determined |
| Philippines PICCS | : | Not determined |

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### **16. OTHER INFORMATION**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.